WHAT IS CLAIMED IS:

1. A method for transmitting a signal in a logical split mode in a CDMA (Code Division Multiple Access) mobile communication system including a UE (User Equipment), a first Node B for transmitting data on a dedicated channel (DCH) to the UE, a first RNC (Radio Network Controller) for transmitting the data to the first Node B, a second Node B adjacent to the first Node B, and a second RNC for receiving the data from the first RNC and packet data to be transmitted over a downlink shared channel (DSCH), transmitting the data over the DCH to the UE through the second Node B, scheduling the packet data to be transmitted over the DSCH, and transmitting to the second Node B transport format combination indicator (TFCI) information indicating a transport format of the packet data to be transmitted over the DSCH and TFCI information indicating a transport format of the data transmitted over the DCH, the method comprising the steps of:

generating and transmitting scheduling information including TFCI information for the packet data from the second RNC to the first RNC using frame protocol upon receipt of the packet data;

transmitting the TFCI information of the packet data from the first RNC to the first and second Node B upon receipt of the scheduling information; and

transmitting the packet data from the second RNC to the first and second Node B after the transmission of the TFCI information.

2. A method for transmitting a TFCI for a DSCH and a TFCI for a DCH in an asynchronous CDMA mobile communication system, comprising the steps of:

45

transmitting DSCH data from an SRNC (Serving RNC) to a DRNC (Drift RNC);

generating and transmitting scheduling information of the DSCH data scheduled by the DRNC, and the corresponding TFCI information to the SRNC using

5 frame protocol;

transmitting the TFCI information of the DSCH data from the SRNC to the Node Bs; and

transmitting the DSCH data of the DRNC transmitted from the SRNC to the Node Bs after transmission of the TFCI.

10

3.   An apparatus for transmitting a signal in a logical split mode in a CDMA mobile communication system including a UE, the apparatus comprising:

a first Node B for transmitting data on a dedicated channel (DCH) to the UE, a first RNC for transmitting the data to the first Node B, a second Node B adjacent to the

15 first Node B, and a second RNC for receiving the data from the first RNC and packet data to be transmitted over a downlink shared channel (DSCH), transmitting the data over the DCH to the UE through the second Node B, scheduling the packet data to be transmitted over the DSCH, and transmitting to the second Node B TFCI information indicating a transport format of the packet data to be transmitted over the DSCH and

20 TFCI information indicating a transport format of the data transmitted over the DCH;

the second RNC, upon receipt of the packet data, transmitting scheduling information including TFCI information for the packet data to the first RNC to the second Node B using frame protocol, and transmitting the packet data to the first and second Node Bs after transmission of the TFCI information from the first Node B; and

the first RNC, upon receipt of the scheduling information, transmitting the TFCI information of the packet data to the first and second Node B.

5